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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/844,955 | 04/26/2001 | Kenneth Johnson | PALM-3621.US.P | 1320 |

7590 05/21/2004
WAGNER, MURABITO & HAO LLP
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San Jose, CA 95113

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| EXAMINER |
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LE, NHAN T

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| ART UNIT | PAPER NUMBER |
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2685

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DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,955

Applicant(s)

JOHNSON ET AL.

Examiner

Nhan T Le

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-20 is/are allowed.
- 6) ☒ Claim(s) 1-10, 21 is/are rejected.
- 7) ☒ Claim(s) 22-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it exceeds 150 words.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said first frequency correction" in step c1, line 14.

There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "said second frequency correction" in step c3, line 5.

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spears (US 5,740,525) in view of Baum et al (US 5,233,632).

As to claim 21, Spears teaches apparatus for performing a frequency correction method of communication device, wherein the frequency correction method comprising the step of executing a large shift frequency correction if the first frequency error is larger than a predetermined value (see fig. 1, number 156, col. 7, lines 5-39), and the step of executing a small shift frequency correction if the first frequency error is smaller than a predetermined value (see fig. 1, number 156, col. 7, lines 40-65). Spears fails to teach sampling frequency data a first time, wherein the sampling comprises a plurality of frequency samples and filtering the frequency data to estimate the first frequency errors. Baum teaches sampling frequency data a first time, wherein the sampling comprises a plurality of frequency samples and filtering the frequency data to estimate the first frequency errors (see fig. 2, number 203, number 205, col. 2, lines 10-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Baum into the system of Spears in order to estimate the frequency errors more accurately.

Allowable Subject Matter

Claims 1-10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

As to claim 1, Spears (US 5,740,525) teaches method and apparatus for temperature compensation of a reference oscillator in a communication devices, Baum et al (US 5,233,632) teaches communication system receiver apparatus and method for fast carrier acquisition, Uda (US 5,940,744) teaches local frequency correction. These teaching of these prior arts either combined or alone fails to teach sampling frequency data second time to estimate a second frequency error, and applying second reference frequency to radio transceiver to compensate for the second frequency error wherein the second reference frequency compensates for the first and the second errors.

Dependent claims 2-10 would be allowed for the same reason.

Claims 11-20 are allowed.

As to claim 11, Spears (US 5,740,525) teaches method and apparatus for temperature compensation of a reference oscillator in a communication devices, Baum et al (US 5,233,632) teaches communication system receiver apparatus and method for fast carrier acquisition, Uda (US 5,940,744) teaches local frequency correction. These teaching of these prior arts either combined or alone fails to teach sampling frequency data second time to estimate a second frequency error, and applying second reference frequency to radio transceiver to provide the second frequency correction, wherein the first frequency correction is replaced with the second reference frequency and accessing the ability of a radio transceiver to receive data after the second frequency correction.

Dependent claims 12-20 are allowed for the same reason.

Claims 22-28 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 22, the applied reference fails to teach sampling frequency data a second time to estimate a second frequency error after the first frequency correction and determining if the first frequency correction was satisfactory by determining if the second frequency error is less than a predetermined value.

As to claim 28, the applied reference fails to teach updating a net total of all frequency error since the last time a reference frequency stored in memory was updated and storing a new reference frequency based on the net total and previous reference frequency.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T Le whose telephone number is 703-305-4538. The examiner can normally be reached on 08:00-05:00 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nhan Le

Nguyen Vo
5-17-04

NGUYENT.VO
PRIMARY EXAMINER